



COUNTY OF SAN DIEGO
Great Government Through the General Management System – Quality, Timeliness, Value
DEPARTMENT OF HUMAN RESOURCES

CLASS SPECIFICATION

CLASSIFIED

HYDROGEOLOGIST

Class No. 003692

SENIOR HYDROGEOLOGIST

Class No. 003691

■ CLASSIFICATION PURPOSE

To perform professional hydrogeological work relating to land use practices, hazardous materials management and monitoring, and regulation enforcement for the preservation of aquifers, groundwater reserves and wells; and to perform related work.

■ DISTINGUISHING CHARACTERISTICS

Hydrogeologist/Senior Hydrogeologist is a professional class series, which specializes in hydrogeological investigations, analyses and research in support of public health and environmental regulations governing underground and subsurface environments and the preservation of aquifers, groundwater reserves and wells. Positions in these classes are found in the departments of Environmental Health and Public Works. The Hydrogeologists are distinguished from Groundwater Geologists in that the latter are allocated to the Planning and Land Use Department and perform work related to the implementation of the county's Groundwater Ordinance. In contrast, Hydrogeologists are involved with broader hydrogeological investigation, regulation enforcement of hazardous substances, and site contamination identification and control.

Hydrogeologist:

This is the journey level class. Under general direction, incumbents conduct a wide variety of hydrogeological studies related to the environmental impact of county and/or commercial operations involving disposal and storage practices to verify compliance with applicable laws and regulations.

Senior Hydrogeologist:

This is the lead level class in the series. Under general direction, incumbents provide technical guidance and training to others and lead a team of multi-disciplinary professionals conducting complex hydrogeological investigations and studies.

■ FUNCTIONS

The examples of functions listed in the class specification(s) are representative but not necessarily exhaustive or descriptive of any one position in the class(es). Management is not precluded from assigning other related functions not listed herein if such duties are a logical assignment for the position.

Essential Functions:

1. Conducts a wide variety of hydrogeological studies related to the environmental impact of county and/or commercial operations involving underground storage or subsurface disposal and storage.
2. Directs detailed hydrogeological and geotechnical studies related to environmental contamination from hazardous substances.
3. Reviews the most difficult site monitoring plans for compliance with State laws and regulations.
4. Consults with other responsible agencies and groups to coordinate investigations and site contamination mitigation.
5. Develops and implements site assessment and mitigation policies and procedures.
6. Conducts professional reviews of reports and investigations by other professionals in the field for compliance with applicable laws and regulations; conducts the most difficult and complex plan reviews and inspections of new and existing underground storage tank systems and landfills/burn sites.
7. Interacts with public and professional organizations in matters of engineering geology and hydrogeology and environmental health.
8. Initiates and conducts special studies.

9. Provides technical guidance to field staff conducting routine investigations related to unauthorized releases of contaminations.
10. Develops, implements and maintains procedures and policies for investigations of unauthorized releases of hazardous substances from underground storage tanks and landfills/burn sites.
11. Provides training to hazardous materials professionals and industry operators on hydrogeological management.
12. Provides responsive, high quality service to County employees, representatives of outside agencies and members of the public by providing accurate, complete and up-to-date information, in a courteous, efficient and timely manner.

Senior Hydrogeologist:

All functions listed above and

1. Performs and leads the most difficult and complex hydrogeological and groundwater studies including the investigation of groundwater contamination due to hazardous materials and harmful land use practices.
2. Monitors the construction and management of the water well program.
3. Collaborates with engineers and other professionals at landfills, hazardous material sites, and industrial and commercial settings to identify and solve problems.
4. Provides technical guidance and training to lower level Hydrogeologists.

■ KNOWLEDGE, SKILLS AND ABILITIES

Knowledge of:

- Principles and practices of engineering, geology, hydrology, and hydrogeological exploration and assessment.
- Procedures for addressing complex hydrogeological problems related to hazardous substances and water quality.
- Sampling and analytical procedures and standards.
- Principles and practices of site contamination mitigation and aquifer restoration technologies.
- Laws and regulations related to hazardous waste, underground storage tanks, well drilling, water quality protection, landfill/burn sites.
- Local hydrogeology and geology.
- Principles of groundwater resource exploration, development and management.
- Applicable laws and regulations related to the use of groundwater within the State of California.
- Regulatory prevue and activities of other environmental enforcement and public safety agencies.
- Principles and practices of environmental health and sanitary engineering.
- Methods and procedures for conducting regulatory investigations.
- County customer service objectives and strategies.

Senior Hydrogeologist (in addition to the above):

- Principles and techniques of project leadership and training.

Skills and Abilities to:

- Perform scientific studies of underground and subsurface soil conditions with the intent of preserving groundwater reserves.
- Plan, organize and complete technical projects with minimum supervision.
- Prepare technical reports, flow charts, drawings, and sketches.
- Evaluate the use of storage tanks, pipes, trenching or other means used to meet regulatory requirements for water, hazardous materials, waste storage or waste disposal.
- Work in collaboration with other scientific, engineering and technical personnel to prepare comprehensive reports and recommendations.
- Communicate effectively orally and in writing.
- Organize and direct the work of others.
- Establish effective working relationships with management, employees, employee representatives and the public representing diverse cultures and backgrounds.
- Treat County employees, representatives of outside agencies and members of the public with courtesy and respect.
- Exercise appropriate judgment in answering questions and releasing information; analyze and project consequences of decisions and/or recommendations.

Senior Hydrogeologist (in addition to the above):

- Provide technical guidance and training to others.
- Lead a team of multi-disciplinary professionals.

■ EDUCATION/EXPERIENCE

Education, training, and/or experience that demonstrate possession of the knowledge, skills and abilities listed above. Examples of qualifying education/experience are: a bachelor's degree from an accredited college or university in geology, soil science, hydrogeology, civil engineering, environmental engineering, chemical engineering or a closely related field, AND,

Hydrogeologist:

Two (2) years of experience in the field of hydrogeology, which included identification and control of hazardous substance contamination. Applicants must demonstrate a strong background in engineering, geology, hydrology, water quality, hazardous substances and environmental assessment and management.

Senior Hydrogeologist:

One (1) year of experience as Hydrogeologist with the County of San Diego; OR, Three (3) years of experience in the field of hydrogeology, which included responsibility for the preparation of hazardous substance contamination studies. Experience in training and leading a team of professionals is highly desirable.

■ ESSENTIAL PHYSICAL CHARACTERISTICS

The physical characteristics described here are representative of those that must be met by an employee to successfully perform the essential functions of the classification(s). Reasonable accommodation may be made to enable an individual with qualified disabilities to perform the essential functions of a job, on a case-by-case basis.

Maintain physical condition appropriate to the performance of assigned duties and responsibilities which, may include the following:

- Constant sitting.
- Frequent repetitive use of hands, and fine manipulation of right and left hand.
- Occasional walking, standing, bending of neck and waist, squatting, climbing, kneeling, crawling, twisting of neck and waist, simple grasping of right and left hand, pushing and pulling right and left hand, reaching above and below shoulder level, lifting objects weighing up to ten pounds from below the waist to a height of two feet and transporting distances up to 100 feet.
- Operates assigned or personal motor vehicle.

■ SPECIAL NOTES, LICENSES, OR REQUIREMENTS

License

A valid California class C driver's license, which must be maintained throughout employment in this class, is required at time of appointment, or the ability to arrange necessary and timely transportation for field travel. Employees in this class may be required to use their own vehicle.

Certification/Registration

Must be a Certified Hydrogeologist or a Registered Geologist in the State of California.

Working Conditions

Works in the field around equipment and machinery. Walks on uneven ground. May be exposed to excessive noise, extremes in temperature, humidity or wetness. Uses safety glasses and hearing protections. May be exposed to biohazards.

Background Investigation

Must have a reputation for honesty and trustworthiness. Misdemeanor and/or felony convictions may be disqualifying depending on type, number, severity, and recency. Prior to appointment, candidates will be subject to a background investigation.

Probationary Period

Hydrogeologist: Incumbents appointed to permanent positions in these classes shall serve a probationary period of 6 months (Civil Service Rule 4.2.5).

Sr. Hydrogeologist: Incumbents appointed to permanent positions in these classes shall serve a probationary period of 12 months (Civil Service Rule 4.2.5).

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